Behavioural and Cognitive Psychotherapy, 2011, 39, 235–241
First published online 13 December 2010 doi:10.1017/S1352465810000731

Pilot Study of Mindfulness-Based Cognitive Therapy for Trainee Clinical Psychologists

Katharine A. Rimes

University of Bath, UK

Janet Wingrove

South London & Maudsley NHS Foundation Trust, UK

Background: It is recommended that Mindfulness-Based Cognitive Therapy (MBCT) instructors should undertake MBCT themselves before teaching others. **Aim:** To investigate the impact of MBCT (modified for stress not depression) on trainee clinical psychologists. **Method:** Twenty trainees completed questionnaires pre- and post-MBCT. **Results:** There was a significant decrease in rumination, and increases in self-compassion and mindfulness. More frequent home practice was associated with larger decreases in stress, anxiety and rumination, and larger increases in empathic concern. Only first-year trainees showed a significant decrease in stress. Content analysis of written responses indicated that the most commonly reported effects were increased acceptance of thoughts/feelings (70%), increased understanding of what it is like to be a client (60%), greater awareness of thoughts/feelings/behaviours/bodily sensations (55%) and increased understanding of oneself and one's patterns of responding (55%). Participants reported increased metacognitive awareness and decentring in relation to negative thoughts. Eighty-five percent reported an impact on their clinical work by the end of the course. **Conclusions:** Trainee psychologists undergoing MBCT experienced many of the psychological processes/effects that they may eventually be helping to cultivate in clients using mindfulness interventions, and also benefits in their general clinical work.

Keywords: Mindfulness, rumination, acceptance, clinical psychology, psychotherapy training.

Introduction

The decision to offer a Mindfulness-Based Cognitive Therapy (MBCT, Segal, Williams and Teasdale, 2002) course to clinical psychology trainees was based on three main considerations. First, given the increasing interest in mindfulness as a key component of a number of different therapeutic interventions, it seemed important to provide an experiential course to inform the trainees' study and critical evaluation of these relatively new approaches.

Reprint requests to Katharine A. Rimes, Department of Psychology, University of Bath, Claverton Down, Bath BA2 7AY, UK. E-mail: K.A.Rimes@bath.ac.uk An extended version is also available online in the table of contents for this issue: http://journals.cambridge.org/jid_BCP

In addition, there is a high level of consensus amongst those using mindfulness-based approaches that it is essential to experience mindfulness practice from the inside before instructing others (e.g. Segal et al., 2002). MBCT was chosen rather than Mindfulness-Based Stress Reduction (MBSR; Kabat-Zinn, 1990) because MBCT is recommended in UK clinical guidelines for depression (NICE, 2009) and is therefore likely to be provided more often by clinical psychologists in National Health Service settings than MBSR. A second consideration was that, whether or not the trainees choose to use mindfulness interventions with their clients, the practice of mindfulness may contribute to the development of their skills of self-awareness and reflection, and thus make a positive contribution to their training as therapists. In a recent model of therapist skill development, Bennett-Levy (2006) describes mindfulness as one of three overlapping attributes (the others being empathy and reflection-in-action) of the interpersonal perceptual skills of attunement and receptivity, which he sees as a key part of the procedural system of therapist skills. The final reason was that, as well as providing an opportunity to learn potentially useful specific and more general therapeutic skills, MBCT might be helpful as a stress-management intervention. Mental health work can be stressful and up to 40% of clinical psychologists report "caseness" levels of distress (Hannigan, Edwards and Burnard, 2004). As students at different stages of the 3-year course had differing work demands and experience, preliminary analyses were undertaken to investigate any indication of a differential impact depending on the stage of training.

Method

Participants

Participants were 20 female trainees from the Institute of Psychiatry clinical psychology doctoral training course who had responded to an invitation to participate. Nine were in the 1st year, six were in the 2nd year and five were in the 3rd year of training.

Measures

Questionnaires used to assess stress, anxiety and depression and empathic concern were the Perceived Stress Scale (PSS; Cohen, Kamarck and Mermelstein, 1983), the Hospital Anxiety and Depression Scale (HADS; Zigmond and Snaith, 1983) and the Interpersonal Reactivity Index (IRI; Davis, 1983). Questionnaires to assess possible processes of change were the Five Facet Mindfulness Questionnaire (FFMQ; Baer, Smith, Hopkins, Krietemeyer and Toney, 2006), the Self-Compassion Scale (Neff, 2003), and the Rumination-Reflection Questionnaire (RRQ; Trapnell and Campbell, 1999). A Mechanisms of Mindfulness Questionnaire was devised to investigate other possible processes. Participants were asked multiple choice and open-ended questions to further assess the impact of the course and their home practice. (More detailed information about the measures is given in the extended online report).

Procedure and intervention

Information about the mindfulness course was emailed to trainees. Respondents had a brief interview and gave informed consent to participate. A researcher not involved in this study emailed participant codes to the trainees so that the questionnaire responses were

anonymous to the investigators. Questionnaires were completed in the first and last session. The content of the 8-week MBCT course was based on Segal et al. (2002) but parts specific to depression were altered to focus on stress. It was delivered by the two investigators, who were undertaking a post-graduate certificate/diploma in mindfulness-based approaches at Bangor University.

Analysis

Paired *t*-tests were used to compare measures taken before and after the MBCT. Preliminary analyses examined whether 1st year trainees ($n = 9$) showed a different response to 2nd and 3rd years ($n = 11$; these years were combined because of the smaller numbers). Independent *t*-tests were used to compare change in questionnaire measures (post scores minus pre-scores) between the 1st years and the 2nd/3rd years. Pearson's correlations were used for preliminary investigations of the associations between changes in the different questionnaire measures and i) changes in stress and ii) amount of home practice. Only significant results or marginally significant trends are reported below. For written responses to open-ended questions, content analysis was undertaken with independent ratings by the two authors.

Results

Attendance and home practice

Seven participants attended all eight sessions, six attended seven sessions, five attended six sessions, and two attended five sessions. The mean amount of weekly home practice was 91.9 mins ($SD = 74.3$). Self-reported average number of days per week of home practice was as follows: 0 days, $n = 3$ (15%); 1–2 days, $n = 11$ (55%); 3 days, $n = 3$ (15%); 4–6 days, $n = 3$ (15%).

Changes between pre- and post-MBCT

There was a significant decrease in rumination (Pre-MBCT Mean = 38.9, $SD = 8.8$; Post-MBCT Mean = 34.1, $SD = 7.7$; $t = 4.9$, $p < .0005$), and significant increases in mindfulness (Pre-MBCT Mean = 124.7, $SD = 11.7$; Post-MBCT Mean = 133.1, $SD = 15.2$; $t = 3.0$, $p = .0008$) and self-compassion (Pre-MBCT Mean = 19.0, $SD = 2.9$; Post-MBCT = 20.3, $SD = 2.4$; $t = 3.1$, $p = .016$).

Comparison between participants in different years of training

The 1st years showed a significantly larger increase in self-compassion than 2nd/3rd years ($t(19) = 2.4$, $p = .025$) and a non-significant trend for a larger reduction in stress ($t(19) = -2.0$, $p = .058$). As this trend was potentially important regarding the optimum time for providing MBCT training, it was explored further. A paired *t*-test indicated that the 1st years showed a significant decrease in stress after the MBCT course (Mean Pre-MBCT = 24.6, $SD = 8.1$; Mean Post-MBCT = 20.3, $SD = 6.2$) after the MBCT course ($t(8) = 2.7$, $p = .028$). Inspection of mean scores indicated that the 2nd years showed a small decrease in stress (Mean Pre-MBCT = 22.7, $SD = 5.2$, Mean Post-MBCT = 21.5, $SD = 5.0$) whereas the 3rd

years showed an increase (Mean Pre-MBCT = 21.8, *SD* = 7.7; Mean Post-MBCT = 26.0, *SD* = 5.0). There was no significant difference in home practice duration between the 1st years and 2nd/3rd years ($t(18) = 0.8$, $p = .79$).

Associations between changes in stress and other psychological variables

Reductions in stress correlated significantly with reductions in rumination ($r(19) = 0.63$, $p = .004$) and anxiety ($r(19) = 0.53$, $p = .020$) and increases in empathic concern ($r(19) = -0.55$, $p = .015$).

Relationship between home practice and change in psychological variables

Greater duration of home practice per week was significantly correlated with larger decreases in rumination ($r(20) = -0.49$, $p = .039$) and larger increases in empathic concern ($r(20) = 0.484$, $p = .042$). More days per week of home practice were significantly correlated with larger decreases in stress ($r(19) = -0.557$, $p = .013$), rumination ($r(20) = -0.650$, $p = 0.002$) and anxiety ($r(20) = -0.602$, $p = 0.005$) and larger increases in empathic concern ($r(20) = 0.511$, $p = 0.021$).

Mechanisms of Mindfulness Questionnaire

Items with the highest ratings of change since the MBCT were: "Take a 'step back' from negative thinking rather than becoming taken over by it" (Mean = 1.3, *SD* = 1.0); "When I'm having negative thoughts, recognizing them as just thoughts and not facts" (Mean = 1.2, *SD* = 0.9); "When I have upsetting thoughts, just noticing them and letting them go" (Mean = 1.1, *SD* = 0.9); "Attend to the present moment rather than thinking about the past or present" (Mean = 1.1, *SD* = 0.8) and "Accept my feelings" (Mean = 1.1, *SD* = 0.7). Please see the extended report (Table 3) for the full results.

Content analysis of written answers about impact of MBCT

The most commonly reported effects were increased acceptance of thoughts/feelings (70%), increased understanding of what it is like to be a client (60%), greater awareness of thoughts/feelings/behaviours/bodily sensations (55%) and increased understanding of oneself and one's patterns of responding (55%) (see Table 1).

Multiple choice questions about impact of the MBCT

Ninety-five% ($n = 19$) of participants said they had responded or coped differently with particular situations or issues as a result of taking the course. Eight-five percent ($n = 17$) said that MBCT had changed the way they respond to negative thoughts or feelings. Eighty-five percent ($n = 17$) said the course changed the way they thought or felt about psychological problems or stress. Seventy-five percent ($n = 15$) said that it had changed the way they thought or felt about themselves. Eight-five percent ($n = 17$) of those responding said that the course had impacted on their clinical work.

Table 1. Effects of the mindfulness training reported by trainee clinical psychologists

	Proportion reporting effect	
Theme	%	(*n*)
Acceptance and compassion		
Greater acceptance of thoughts and feelings	70	(14)
Non-judging/kinder/more compassionate/more accepting of self	40	(8)
Staying with/experiencing difficult feelings	30	(3)
Not challenging/fighting negative thoughts, feelings or situations	30	(6)
Knowing negative thoughts and feelings will pass/letting them pass	25	(5)
Shared experience with others, validation	10	(2)
Increased compassion towards or acceptance of others	10	(2)
Increased awareness		
Greater awareness of thoughts/feelings/behaviours/bodily sensations	55	(11)
Increased understanding of self and own patterns of responding	55	(11)
Appreciating or being in the present moment more	35	(7)
Noticing pleasurable things more	35	(7)
New ways of responding		
Pausing before responding/not reacting automatically	45	(9)
Use of breathing space or breath as anchor during stress	30	(6)
Taking a step back from situations	30	(6)
Greater ability to take a step back from/observe thoughts	30	(6)
Recognizing and dealing with stress earlier	20	(4)
Reduced rumination	10	(2)
Impact on clinical work		
Increased understanding of what it is like to be client	60	(12)
Increased understanding that homework can be difficult	30	(6)
Increased understanding mindfulness/new perspective	30	(6)
Applying mindfulness concepts	30	(6)
Influenced clinical work	25	(5)
Behaving differently in therapy having understood more about client's perspective	20	(4)
Increased understanding of what like to be in a group/group processes	20	(4)
Strengthened existing beliefs	15	(3)
Greater awareness of own reactions in therapy sessions	15	(3)
Difficulties		
Missed opportunity to some degree e.g. would have gained more if more time	35	(7)
Resistance in self	10	(2)
Difficulties in doing home practice resulted in negative feelings	10	(2)

Summary and discussion

After MBCT, the trainee psychologists showed decreased rumination and increased self-compassion and mindfulness. The effects most commonly reported in open-ended written responses were also consistent with key aims of MBCT: greater acceptance of thoughts and feelings, greater awareness of thoughts/feelings/bodily sensations and their own patterns of responding, and pausing before reacting. Furthermore, items concerning a "decentred"

perspective and metacognitive awareness in relation to negative thoughts showed the largest mean ratings on the retrospective Mechanisms of Mindfulness Questionnaire. This promising pattern of findings indicates that the trainees were directly experiencing many of the processes that they would be aiming to help cultivate in others using mindfulness teaching. This experience is likely to help improve their understanding and modelling of these processes. Furthermore, trainees also reported some beneficial effects for their general clinical work, including greater understanding of what it is like to be a client, the difficulties of doing homework, and group processes.

There were no significant reductions in anxiety and depression, which is not surprising given that these were well below clinical levels of severity before the training. Their mean pre-MBCT stress levels were not as high as those reported by health professionals who had been specifically recruited for a stress/burnout reduction mindfulness intervention (Shapiro, Astin, Bishop and Cordova, 2005) but were slightly higher than the mean levels reported in a general population US sample (Cohen and Williamson, 1988). The 1st years, who had the highest pre-MBCT stress levels, were the only year to show a significant decrease in stress, and after training their stress levels had reduced to general population levels. The 3rd years reported higher perceived stress post-MBCT (though the numbers were too small to analyze statistically), which may have at least partly reflected their increasing work demands.

Greater frequency of home practice was associated with greater reductions in stress, anxiety and rumination and larger increases in empathic concern. This did not account for the greater reductions in stress in the 1st years. With this study design the nature of these associations cannot be ascertained. The lack of a control group means that it cannot be concluded that the observed changes are actually attributable to the MBCT. For example, the changes in the 1st years may have been caused by a process of general adjustment to their new role rather than the mindfulness training. Furthermore, the "first come, first served" recruitment method may have led to biases in the sample, for example towards increased inclusion of those trainees who were more enthusiastic or felt in greatest need of help. Other limitations of the study include the small sample size, possible demand effects as the trainees were aware of the rationale of the intervention, relative inexperience of the instructors, and lack of independent verification of intervention adherence.

Results from this pilot study of MBCT indicate personal benefits for trainee clinical psychologists as well as positive effects on their clinical work. A randomized controlled trial is now required.

Acknowledgements

Katharine Rimes acknowledges financial support from the Department of Health via the National Institute for Health Research (NIHR) Biomedical Research Centre for Mental Health at the South London and Maudsley NHS Foundation Trust and the Institute of Psychiatry, King's College London. We are very grateful to the participants and to our clinical supervisors at that time, David Elias and Jill Roberts.

References

Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J. and Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, *13*, 27–45.

Bennett-Levy, J. (2006) Therapist skills: a cognitive model of their acquisition and refinement. *Behavioural and Cognitive Psychotherapy*, *34*, 57–78.

Cohen, S., Kamarck, T. and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385–396.

Cohen, S. and Williamson, G. M. (1988). Perceived stress in a probability sample of the US. In S. Spacapan and S. Oskamp (Eds.), *The Social Psychology of Health*. Newbury Park, CA: Sage.

Davis, M. H. (1983). Measuring individual differences in empathy: evidence for a multidimensional approach. *Journal of Personality and Social Psychology*, *44*, 113–126.

Hannigan, B., Edwards, D. and Burnard, P. (2004) Stress and stress management in clinical psychology: findings from a systematic review. *Journal of Mental Health*, *13*, 235–245.

Kabat-Zinn, J. (1990). *Full Catastrophe Living*. New York: Dell.

Neff, K. D. (2003). Development and validation of a scale to measure self-compassion. *Self and Identity*, *2*, 223–250.

NICE (2009). *Depression – The Treatment and Management of Depression in Adults: quick reference guide. NICE Clinical Guideline CG90*. London: National Institute for Clinical Excellence. (Available at http://guidance.nice.org.uk/CG90/QuickRefGuide/pdf/English)

Segal, Z. V., Williams, J. M. G. and Teasdale, J. D. (2002). *Mindfulness-Based Cognitive Therapy for Depression*. New York: Guilford Press.

Shapiro, S. L., Astin, J. A., Bishop, S. R. and Cordova, M. (2005) Mindfulness-based stress reduction for healthcare professionals: results from a randomized trial. *International Journal of Stress Management*, *12*, 164–176.

Trapnell, P. D. and Campbell, J. D. (1999). Private self-consciousness and the five-factor model of personality: distinguishing rumination from reflection. *Journal of Personality and Social Psychology*, *76*, 284–304.

Zigmond, A. and Snaith, R. (1983). The Hospital Anxiety and Depression Scale. *Acta Psychiatrica Scandinavica*, *67*, 361–370.